

ABSTRACT

The present invention relates to a forebody flow control system and more particularly to aircraft or missile flow control system for enhanced maneuverability and stabilization at high angles of attack. The present invention further relates to a method of operating the flow control system.

In one embodiment, the present invention includes a missile or aircraft comprising an afterbody and a forebody; at least one deployable flow effector on the missile or aircraft forebody; at least one sensors each having a signal, the at least one sensor being positioned to detect flow separation on the missile or aircraft forebody; and a closed loop control system; wherein the closed loop control system is used for activating and deactivating the at least one deployable flow effector based on at least in part the signal of the at least one sensor.